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FIRST REPORT OF THE PRESENCE OF THE GENUS *DIGITONTHOPHAGUS* (COLEOPTERA: SCARABAEIDAE) IN COLOMBIA

Primera observación sobre la presencia del género *Digitonthophagus* (Coleoptera: Scarabaeidae) en Colombia

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The presence, migration, and distribution of the Dung Beetle *Digitonthophagus gazella* (Fabricius 1787) (originally the species was named *Onthophagus gazella* Fabricius, and later placed on the *Digitonthophagus* genus by the Zunino (1981) review) (Fig. 1), a species of Indo-African origin, has been widely documented since its introduction to Texas (North America), in April 1970 and in Pascua island (Chile), in February 1988. Its dispersion path (Blume & Aga 1978, Fincher *et al* 1983), has been inferred through observations in other countries such as Mexico (Rivera-Cervantes & García-R. 1991, Lobo & Montes de Oca 1997), Guatemala (Kohlmann 1994), Nicaragua (Maes *et al*. 1997), Brazil (Miranda *et al*. 1990, Bianchin *et al*. 1998), and Chile (Ripa & Rodríguez 1990). Up to date, there is no exhaustive knowledge on this species distribution in America, not only because of the lack of data in many countries such as Ecuador, Panama, Bolivia, Venezuela, and Colombia, but also because of the lack of knowledge regarding the potential geographical barriers for beetle's dispersion.

In December 1995, while collecting dung of *Bos indicus*, in San Andrés Island (Colombia), I found three dung beetles. Later in an exhaustive research in July 1998, five locations around the island were sampled for dung bettles [La Loma (12º 34'- 81º 42'), Buenavista (12º 33'- 81º 43'), Cueva de Morgan (12º 32'- 81º 43'), San Luis (12º 32'- 81º 42'), El Cove (12º 31'- 81º 43')]. In each location a line transect was drawn and five pitfall traps (Escobar 1994), were placed in each for a 24 hour period, 30 m apart from each other, with 25 ml of human dung.

The second sampling led to collecting 387 *D. gazella* individuals on all the traps, proving the abundant existence of a local population. The record of this species represents an extension of the range known until now, being the most southern (insular) record of the migration from the north.

There is no record of *D. gazella* on continental Colombia, but this could be due to the low collection effort on Colombian borders, especially with Panama, Venezuela, Brazil, and Ecuador. The latter being probable zones where the species could have migrated from.

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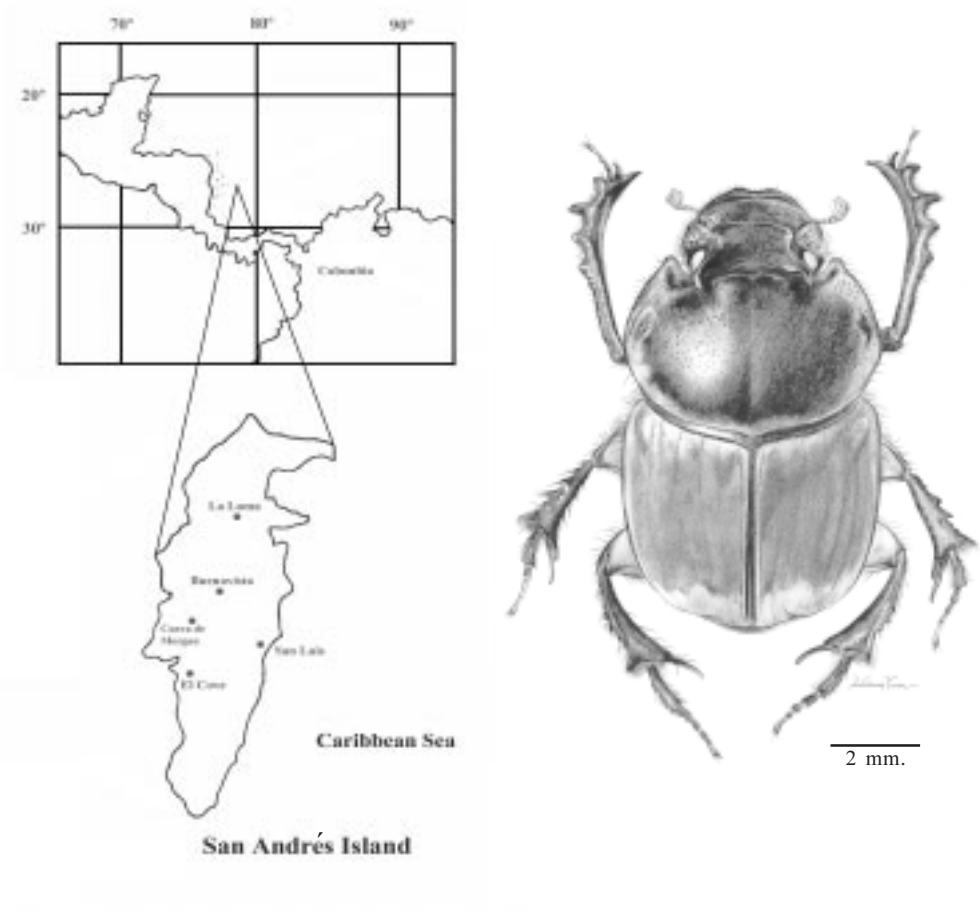

Figura 1. Location of the study area San Andrés Island and *Digitonthophagus gazella* (Fabricius).

LITERATURE CITED

BIANCHIN, I., R.G.O. ALVES & W. KOLLER. 1998. Efeito de Carrapaciticidas/Inseticidas "Pour-on" sobre adultos do besouro coprófago africano *Onthophagus gazella* Fabr. (Coleoptera:Scarabaeidae). An. Soc. Entomol. Brasil 27: 275-279.

BLUME, R.R. & A. AGA. 1978. *Onthophagus gazella*: Progress of experimental releases in South Texas. Folia Entomológica Mexicana 39-40: 190-191.

ESCOBAR, F. 1994. Excrementos, coprófagos y deforestación en bosques de montaña al sur occidente de Colombia, Tesis de Grado Biología-Entomología, Universidad del Valle, Cali.

FINCHER, G.T.; T.B. STEWART, & J.S. HUNTER, III. 1983. The 1981 distribution of *Onthophagus gazella* Fabricius from releases in Texas and *Onthophagus taurus* Schreber from an unknown release in Florida (Coleoptera:Scarabaeidae). Coleopterists Bulletin 37: 159-163.

KOHLMANN, B. 1994. A preliminary study of the invasion and dispersal of *Digitontophagus gazella* (Fabricius, 1787) in Mexico (Coleoptera: Scarabaeidae: Scarabaeinae). Acta Zoológica Mexicana *(n.s.)* 61: 35-42.

LOBO, J.M. & E. MONTES DE OCA. 1997. Spatial microdistribution of two introduced dung beetles species *Digitonthophagus gazella* (F.) and *Euoniticellus intermedius* (Reiche) (Coleoptera: Scarabaeidae) in an arid region of northern Mexico (Durango, Mexico). Acta Zoológica Mexicana (n.s.) 71: 17-32.

MAES, J.M., B.C. RATCLIFFE & M.L. JAMESON. 1997. Fauna entomológica de la Reserva Natural Bosawas, Nicaragua. XI. Escarabajos (Coleoptera: Scarabaeidae) nuevos para la fauna de Nicaragua. Revista Nicaragüense Entomológica 39:41-45.

Miranda, C.H.B., Y.A. do Nacimiento & I. Bianchin. 1990. Desenvolvimiento de um programa integrado de controle dos nematodeos e a mosca-dos-chifres na região dos cerrados. Fase 3. Potencial de *Onthophagus gazella* no enterrio de fezes bovinas. EMPRABA-Gado de Corte, Pesq. And. 42: 1-5.

RIPA, R.S.; P.S. ROJAS & G. VELASCO. 1995. Releases of biological control agents of Insects pests on Easter Island (Pacific Ocean). Entomophaga 40(3/4): 427-440.

RIVERA-CERVANTES, L.E. & E. GARCÍA-R. 1991. New Locality Records for *Onthophagus gazella* Fabricius (Coleoptera: Scarabaeidae) in Jalisco, México. Coleopterists Bulletin 45(4): 370.

ZUNINO, M. 1981. Insects of Saudi Arabia. Coleoptera: Fam. Scarabaeidae, Tribe Onthophagini. Fauna of Saudi Arabia 3: 408-416.

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